



FEE TRANSMITTAL
for FY 2003
(Large Entity)

Complete if Known

Application Number	10/088,205
Filing Date	July 16, 2002
First Named Inventor	Yasuhiko TAKEO et al.
Examiner Name	Linh M. Nguyen
Group Art Unit	2816
Total Amount of Payment	(\$168)
Attorney Docket Number	2469-111

METHOD OF PAYMENT (check one)

1. ☒ The Commissioner is hereby authorized to charge additional fees and credit any overpayment to Deposit Account Number 02-2135 in the name of Rothwell, Figg, Ernst & Manbeck

☒ Charge any Additional Fee Required Under 37 CFR 1.16 and 1.17

☐ Applicant claims small entity status

2. ☒ Payment Enclosed

☒ Check

☐ Credit Card

FEE CALCULATION

1. FILING FEE

Fee Code	Fee \$	Fee Description	Fee Paid
1001	750	Utility filing fee	[]
1002	330	Design Filing Fee	[]
1003	520	Plant Filing Fee	[]
1004	750	Reissue Filing Fee	[]
1005	160	Provisional Filing Fee	[]

SUBTOTAL \$

2. CLAIMS

	Extra Claims	Fee	Fee Paid
Total Claims [15] - 20** = [0] x		\$18 =	[]
Independent Claims [9] - 7** = [2] x		84 =	[168]
Multiple Dependent Claims +		280 =	[]

**or number previously paid, if greater;

SUBTOTAL \$168

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Fee Code	Fee Paid	Fee Description	Fee Paid
1051	130	Surcharge - late filing fee or oath	[]
1052	50	Surcharge - late provisional filing fee or cover sheet	[]
1053	130	Non-English specification	[]
1812	2,520	For filing a request for reexamination	[]
1804	920	Requesting publication of SIR prior to Examiner action	[]
1804	1,840*	Requesting publication of SIR after Examiner action	[]
1251	110	Extension for reply within first month	[]
1252	410	Extension for reply within second month	[]
1253	930	Extension for reply within third month	[]
1254	1,450	Extension for reply within fourth month	[]
1255	1,970	Extension for reply within fifth month	[]
1401	320	Notice of Appeal	[]
1402	320	Filing a brief in support of an appeal	[]
1403	280	Request for Oral Hearing	[]
1451	1,510	Petition to institute a public use proceeding	[]
1452	110	Petition to revive -unavoidable	[]
1453	1,300	Petition to revive - unintentional	[]
1501	1,300	Utility issue fee (or reissue)	[]
1502	470	Design issue fee	[]
1503	630	Plant issue fee	[]
1460	130	Petitions to the Commissioner	[]
1807	50	Processing fee under 37 CFR 1.17(q)	[]
1806	180	Submission of Information Disclosure Statement	[]
8021	40	Recording each patent assignment per property (times number of properties)	[]
1809	750	Filing a submission after final rejection (37 CFR .129(a))	[]
1810	750	For each additional invention to be examined (37 CFR 1.129(b))	[]
1801	750	Request for Continued Examination (RCE)	[]
1802	900	Request for expedited examination of a design application	[]
1504	300	Publication fee for early, voluntary, or normal publication	[]
1505	300	Publication fee for republication	[]
1455	200	Filing application for patent term adjustment	[]
1456	400	Request for reinstatement of term reduced	[]
Other fee (specify)			[]

* Reduced by Basic Filing Fee Paid

SUBTOTAL

\$

SUBMITTED BY		Complete (if applicable)	
NAME AND REG. NUMBER	Vincent M. DeLuca, Reg. No. 32,408		
SIGNATURE	Vincent M. DeLuca	DATE	19 MAY 03
		DEPOSIT ACCOUNT USER ID	



#7/Election
1/9
5/27/03
Smith

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE	<i>Application Number</i>	10/088,205
	<i>Filing Date</i>	July 16, 2002
	<i>First Named Inventor</i>	Yasuhiko TAKEO
	<i>Group Art Unit</i>	2816
	<i>Examiner Name</i>	Linh M. Nguyen
	<i>Attorney Docket Number</i>	2469-111
<i>Title of the Invention: PHASE DETECTOR CIRCUIT</i>		

AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

In response to the Election/Restriction requirement mailed April 17, 2003, please amend the subject patent application as follows.

In the Claims:

Please add the following new claims 8-15.

8. A phase detector circuit that outputs a DC voltage signal associated with a phase difference between an input random NRZ signal and a second signal related to said input random NRZ signal, comprising:

- a delay circuit for delaying said input random NRZ signal by an amount related to a period T of said input random NRZ signal and outputting a delayed signal; and
- a combination of at least one multiplier circuit and a subtractor circuit, which combination performs a mathematical operation on said input random NRZ signal, said delayed signal, and said second signal to produce an output signal having a DC voltage component corresponding to said phase difference.

9. The phase detector circuit of claim 8, wherein said second signal is the same as said input random NRZ signal but differing in phase therefrom by an angle θ , and said delay circuit delays said input random NRZ signal by a value of T.

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